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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,681	04/16/2004	Cesur Celik	7012-X04-002	9588

27317 7590 05/03/2006

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EXAMINER

MAI, NGOCLAN THI

ART UNIT PAPER NUMBER

1742

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

10/826,681

**Applicant(s)**

CELIK ET AL.

**Examiner**

Ngoclan T. Mai

**Art Unit**

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 14 and 18-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-12, 14 and 16-26 are pending. Claims 8-11 and 16-17 are withdrawn from consideration as being drawn to non-elected species.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-7, 12, 14, 18-21, 22, 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. claims 1 and 25 as currently amended and added, respectively, introduce new matter because there is a support for a nickel-copper-chromium alloy comprising from about 0.2 to 30% by weight of copper and 0.2 to 30% by weight of Cr (combination of claims 6 and 7) there is no support for a base metal alloy powder comprising at least 60% by weight Ni, about 0.2 to 30% by weight Cu and about 6% to 40% by weight Cr as recited in the claim. The limitation "at least 15 ppm by weight Zr" recited in claim 21 and 22 introduces new matter because while there is a support for Zr in the amount of 15 to 175 ppm, there is no support for it in the amount higher than 175 ppm.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 5-7 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations of alloy comprising chromium in the amount recited in claim 5 or Cu in the amount recited in claim 6 do not further limit its parent claim, because these limitations are already recited in the parent claim.

The amount of Cr recited in claim 7 overlapping that of claim 1, thus does not further limit the parent claim.

The limitation recites in claim 12 does not further limit the parent claim.

***Claim Rejections - 35 USC § 103***

Claims 22-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Akimoto et al. (U.S. Patent No. 6,530,972 B2, Akimoto) in view of Kodas et al. (U.S. Patent No. 6,316,100, now Kodas).

Akimoto discloses the claimed base metal alloy powder for use in preparation of multilayer ceramic electronic part, which comprises Ni and Cu having Ni:Cu weight ratio of 7:3, i.e., 70 wt% Ni and 30 wt% Cu, wherein the alloy powder comprises particles having average particle size of 0.6 micron (600 nm) and the particles are spherical in shape, see Table 1, Example 7.

The difference between the claims and Akimoto in that there is no teaching of the presence of at least about 15 ppm Zr.

However as disclosed by the applicant in [0043] the presence of Zr in the alloy is due to the employment of crucible used to made the metal, which is made from zirconium dioxide. The presence of zirconium in the alloy powder therefore is only an impurity. The metal alloy powder of Akimoto are too made by employing a reaction vessel, which is conventionally known in the art is made of refractory metal such as alumina or zirconia (zirconium dioxide). It therefore inherently is included in the alloy powder of Akimoto. Alternatively, Kodas taught in the same field of endeavor discloses the level of impurity such as zirconia in Ni particle is preferably not greater than 0.01 atomic percent (<100 ppm),

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col. 38, lines 37-45. Thus it would have been obvious to one of ordinary skill in the art the Ni alloy powder of Akimoto be made so that the presence zirconium impurity is not higher than 0.01 atomic percent as taught by Kodas. Note that the difference in degree of purity itself does not predicate patentability. In re King, 43 USPQ 400 and In re Merz, 38 USPQ 143. Changing form, purity, or other characteristic of an old product does not render the novel form patentable where the difference in form, purity or characteristic was inherent in or rendered obvious by the prior art. In re Cofer, 354 F2d 664, 148 USPQ 268 (CCPA 1996).

As for claim 26, Kodas also teaches nickel is alloyed with one or more alloying elements including Pd, Ag, Au, Cu, W, Mo, Pt, Re, Sn and Co, col. 36, lines 18-30, 41-62. The alloying element is employed to modify the properties of the metal particles which includes increasing or decreasing sintering temperature, as well as increasing or decreasing the melting temperature, improving the rheological properties of the particles for better dispersion of the particles in organic and water-based pastes, improving the oxidation resistance by increasing the temperature at which oxidation begins or by reducing the total amount of metal that will oxidize at a given temperature and partial pressure of oxygen improving the adhesion of the metal with ceramics. Therefore would have been obvious to one of ordinary skill in the art at the time the invention was made that the nickel alloy powder of Akimoto be made to further include the alloying element(s) as taught by Kodas for the noted improvement.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory


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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ngoclan T. Mai  
Primary Examiner  
Art Unit 1742

n.m.